

Libra XS

Decentralized Stablecoin System

Whitepaper

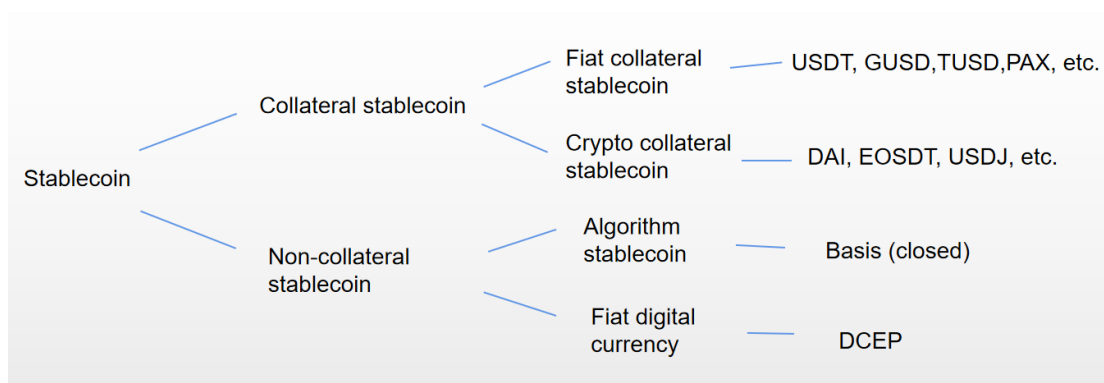
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I Background

As a universal equivalent, currency has five functions: measure of value, medium of circulation, means of payment, means of storage and international money. The cryptocurrency represented by Bitcoin has undertaken some functions of medium of circulation in international transfers due to its anonymity and borderlessness, but also because of its nature of fierce price fluctuations, it hardly bears functions of measure of value, means of payment, means of storage. Therefore, stablecoin comes into being. As a kind of digital currency, it not only retaining the characteristics of easy-to-use and free circulation of cryptocurrencies, but also linked to fiat currency, it is an ideal trading medium.

As of June 2020, the market value of stablecoin has exceeded \$11 billion. Stablecoin is divided into collateral stablecoin and non-collateral stablecoin, and collateral stablecoin is also divided into fiat collateral stablecoin (USDT, GUSD, TUSD, PAX, etc.) and crypto collateral stablecoin (DAI, EOSDT, USDJ, etc.)



The market value of USDT issued by the centralized organization Tether has reached \$9.2 billion, accounting for 82% of the stablecoin market. Tether has deleted the commitment of holding 100% of the collateral assets from the whitepaper. In October 2019, Tether, its affiliates, and affiliated entities were sued by the New York State Attorney General's Office for allegedly manipulating the cryptocurrency market through fraudulent additional issuance, triggering billions of dollars Loss. Tether can issue USDT on its own without USD support, and transfer it to Bitfinex account to buy cryptocurrency. It makes USDT one of the unstable factors in the cryptocurrency market.

Developed countries such as European countries, Japan, and South Korea also have a market demand for stablecoins, however, almost all of the stablecoin projects that

have been released choose to be linked to US dollar. Nowadays, in the process of globalization, other fiat currencies have also made great progress in cross-border trade settlement, establishment of offshore markets, and cross-border investment. Therefore, the development of stablecoin projects linked to other fiat currencies is imminent and possible.

II Libra XS Abstract

In order to realize the vision of "let assets circulate freely around the world", non-profit organization Libra XS Foundation decides to issue decentralized stablecoins linked to fiat currencies at a ratio of 1:1. The governance processes of assets collateral, collateral rate establishment and the asset liquidation, etc. are all vote-decided by the currency holders jointly, and are automatically completed by smart contracts on the blockchain. Instead of US dollars, Libra XS first develops stablecoins for CNY, JPY, and KRW. In the whitepaper, we will explain how the Libra XS blockchain achieves stablecoins issuance, redemption, governance, and value stabilization and other functions.

Libra XS Stablecoin

The goal of Libra XS is to build a stablecoin system that allows freely universal circulation, reducing transaction friction, making global payments simpler and faster, and realizing the exchange between fiat and fiat, fiat and crypto, crypto and crypto. Its application scenarios are as follows:

- 1). Deposit & withdrawal bridge between crypto and fiat
- 2). Crypto currency trading pairs priced in stablecoins
- 3). Stablecoins hedging
- 4). Online & offline consumer payment
- 5). Cross-border payment and bulk transaction
- 6). Stored value, investment and wealth management

III Libra XS Network

With the halving of Bitcoin and the increase of applications in the Ethereum network, the transfer fees in the Bitcoin and Ethereum networks continue to rise. Network congestion and high fees have restricted the continued development of the network. To develop decentralized stablecoins that can be circulated freely around the world, Libra XS must first create a safe, scalable, and reliable blockchain infrastructure. Initially, Libra XS blockchain is managed, developed and operated by the Libra XS Foundation. With the continuous development, it is gradually opened to public nodes, and finally completely decentralized.

BFT Consensus Mechanism

Libra XS blockchain uses the Byzantine Fault Tolerance (BFT) mechanism based on the Libra XS consensus protocol.

Assuming that the distributed system has n nodes, and the Byzantine nodes of the entire system do not exceed m ($n \geq 3m + 1$), the Byzantine Fault Tolerant system needs to meet the following two conditions:

All non-Byzantine nodes use the same input information and get the same result. In the blockchain system, it can be understood that when the random number, block algorithm, and original ledger are the same, the calculation result is the same.

If the input information is correct, then all non-Byzantine nodes must receive this message and calculate the corresponding result. In the blockchain system, it can be understood that non-Byzantine nodes need to calculate the client's request and generate blocks.

The BFT mechanism does not require all nodes to work 100%. As long as the failed node does not exceed 1/3, the network can operate normally.

IV Obtain Stablecoins

1. Collateral

Collateral with stable value is the premise of project safety. At the beginning of the

project, the collateral only accept the top three cryptocurrencies by market value, BTC, ETH, and USDT.

2. Collateralize to Get Stablecoin

Taking BTC and ETH as examples, it needs to send a transaction to the blockchain network to create a Collateral Debt Position (CDP) first, and then deposits the collateral assets to a specific blockchain address to get the stablecoins according to the qualified collateral rate which must be greater than the minimum collateral rate determined by voting.

3. Stablecoin Use

The stablecoins issued by Libra XS are programmable and decentralized. Holders can use them for loan, cross-border payment, online and offline payment and other scenarios.

4. Collateral Redemption

When redeeming collateral assets, it is necessary to ensure that the amount of the stablecoins in the account is greater than or equal to the loan amount, and use the collateral assets to pay for related fees.

V Dual-layer Stablecoin Model

Most decentralized stablecoin projects will issue two tokens, such as Maker DAO, one being the stablecoin DAI, another the governance token MKR. Such a multi-currency system is more complicated to operate, and the stablecoin does not have any value capture capability. Therefore, Libra XS innovatively adopts a dual-layer stablecoin mechanism, using only one stablecoin to achieve network governance and price stabilization.

1. Collateral Debt Position

Most collateral stablecoins are generated on the CDP mechanism, and have been successfully running for many years (such as Maker DAO's DAI).

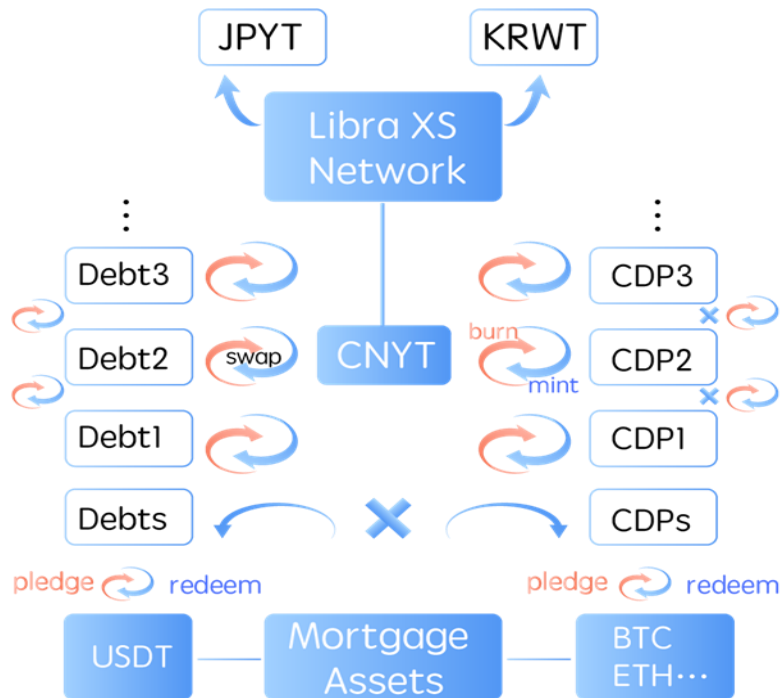
CDP is a smart contract on the blockchain network. Users can deposit their collateral assets into smart contracts to generate stablecoins, and redeem the assets after returning stablecoins. In order to ensure a sufficient amount of collateral assets, the value of the collateral should always be higher than the debt itself, that is, over collateralization. The minimum collateral rate of the stablecoin system is determined by voting, but it must not be less than 120%. In the Libra XS network, the initial minimum collateral rate of BTC and ETH is 150%. As the price of collateral assets falls, the collateral rate drops accordingly, and users can add their collateral assets at any time. When the collateral rate is less than the minimum collateral rate, the debt is liquidated, and fines need to be paid to perform the liquidation to encourage users to maintain their CDP.

Collateralizing assets and getting stablecoins is actually a loan process, so a certain stabilization fee is required, and the stabilization fee rate is determined by the joint voting of the nodes. Part of the stabilization fee is used to maintain the operation of the network, and the remaining part is distributed to currency holders.

2. Exchange-rate-based Swap Mechanism

The price of BTC and ETH fluctuates greatly. In order to ensure that the debt can be repaid in full, the CDP mechanism is used for over collateralization. However, for the mainstream fiat currencies, the probability of large fluctuations in exchange rate is low. In order to expand the use of the network as much as possible under the guarantee of security, collateralizing USDT can borrow 100% of the stablecoins, but it needs to pay a one-time exchange fee. Anyone who buys stablecoins on the secondary market can use them to repay the debts generated by others who borrow stablecoins with USDT. This can help the price of stablecoins always close to the price of fiat currencies. The next chapter will introduce this advantage in detail.

In this system, CDP mechanism can borrow BTC and ETH with larger market value, attracting more users to participate, and expand the scale of the stablecoins; the exchange rate swap mechanism is beneficial to attract external participants and self-realize the stability of stablecoins prices, as shown below.



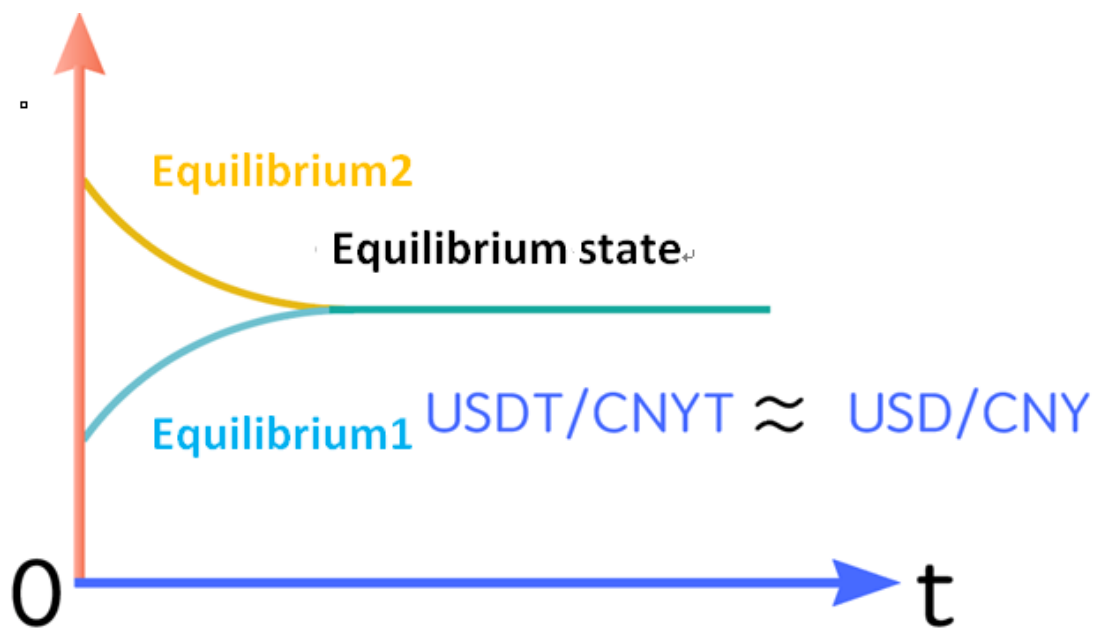
VI Price Stabilization Mechanism

Libra XS protocol innovatively adopts different repayment mechanisms for different collaterals in order to stabilize the price in the system near the price of fiat currency. Take CNYT as the example which is linked to CNY.

For Bitcoin and Ethereum, the stablecoin system adopts the CDP mechanism, and the collateral rate is $>150\%$. After the user borrows CNYT, the collateral assets should also be returned when the debt is repaid.

With the stablecoin USDT as collateral, the CNYT protocol can generate nearly equivalent CNYT, and everyone can use CNYT to redeem the USDT collateralized by others.

The flexible supply/redemption mechanism of CNYT allows only one token in the system, but it can still maintain the stablecoin price close to 1 CNY. When the price of CNYT is significantly lower than 1 CNY, users have the incentive to buy CNYT in the secondary market and use CNYT to redeem USDT at the price of real CNY to reduce

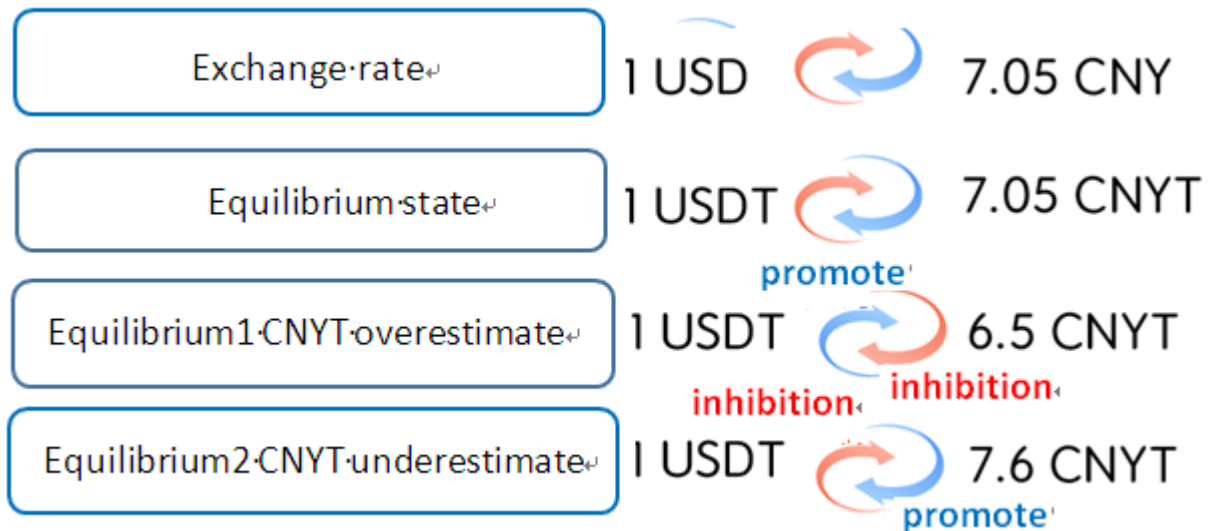


the supply of CNYT and increase the price. When the price of CNYT is significantly higher than 1 CNY, users can collateralize the CNYT at the USD/CNY exchange rate in the CNYT protocol and sell it on the secondary market to increase the supply of CNYT and decrease the price.

The price relationship between USDT and CNYT can be illustrated through a dynamic balancing process, as shown in the figure below. Assuming that the exchange rate of USD/CNY is 7.05, the exchange rate of USDT/CNYT should also be 7.05 in theory, but in practice the exchange rate varies around this value. When CNYT is higher, CNYT can be exchanged for more USDT in the market, which induces users to borrow CNYT in USDT and sell it in the market to earn additional USDT. It can increase the circulation of CNYT and decrease the price of CNYT. On the other hand, when the value of CNYT is lower, users can buy CNYT on the market in USDT to repay the debts of others in the system to get more USDT. It reduces the circulation of CNYT and increases the price of CNYT. Eventually, the price of USDT and CNYT reaches a dynamic balance, and make $USDT/CNYT \approx USD/CNY$, that is, $1\ CNYT \approx 1\ CNY$.

The price of CNYT is stabilized around 1 CNY by directly linking CNY. Therefore, the CNYT protocol can achieve price stability through CNYT itself.

In order to have enough USDT in the collateral assets, the exchange fee between



USDT and CNYT can be lowered to gain more market makers.

VII Libra XS Stablecoin Token Economy

In Libra XS network, the stablecoins are obtained by collateralizing tokens in a smart contract. Based on the dual-layer stablecoin model, as long as one stablecoin can play the role of value stability, governance and value capture at the same time, eventually, true zero-fee loan can be achieved.

Sources of fees in the stablecoin system:

1. Stabilization fee. Collateralizing BTC or ETH and getting stablecoins is actually a loan process, so a certain stabilization fee is required, and the stabilization fee rate is determined by the debt balance, the stability fee rate, and the debt repayment period.
2. Exchange fee. Collateralizing USDT and getting Libra XS stablecoins is similar to the exchange between two fiat currencies. There is no need to pay stabilization fee, but a fixed proportion of exchange fee. Anyone who repays the debt with stablecoins in the system should pay the exchange fee again.
3. Fines. When the user's collateral rate is less than the minimum limit, liquidation is triggered. Although the remaining collateral assets is returned to the user, a fine is required to encourage the user to maintain their CDP.
4. Collateralization interest. The collateral in the system is BTC, ETH, USDT and other

assets with very good liquidity, so in the future, some collateral assets may be transferred through smart contracts to decentralized applications such as Uniswap to obtain additional interests through voting authorization.

All the fees are included in the risk reserve in a certain proportion. The upper limit of the risk reserve is determined by voting. Risk reserve will be spent to:

1. respond to exchange rate fluctuations. Because USDT and the stablecoins in the system are basically exchanged at 1:1, if the fiat currency appreciates after the system generates debt, there are more USDT to be repaid. However, the fluctuations in the exchange rate of fiat currencies in recent years have been very small, and this risk is very small.

2. respond to system failure. If the quotation of the oracle is not updated in time, etc., the liquidation does not start in time and losses are caused. The losses are covered by the risk reserve.

Income of currency holders:

When the fees received by the system minus the risk reserve and there's remaining, the income is given to the currency holders when the debt is repaid.

Currency holders may need to pay the stabilization fee. When the income is equal to the stabilization fee, it means to borrow the stablecoins for free, and when the income is greater than the rate, an additional subsidy can be obtained to realize the value capture of the stablecoins.

VII Network Governance

Libra XS allows its stablecoin holders to modify the governance agreement by voting. Network governance is the rights of currency holders and also the obligations. Currency holders has the rights to receive benefits such as stabilization fees, and also has the obligations to actively exercise their own governance functions to promote network stability. The parameters in the network are determined by the voting of the currency holding nodes. The governance process includes three stages: proposal, voting and execution, with a certain interval between each stage. After the proposal is launched, the community needs time to consider whether it should be passed, and it also needs a period of time after the voting to prevent malicious governance agreements.

1. Change Collateral Type

In the early stage of the project, in order to stabilize the price of collateral assets, only three cryptocurrencies, BTC, ETH and USDT, were selected. With the improvement of the project, more and more cryptocurrencies will be added to the collateral assets, and those that no longer meet the standard will be removed.

2. Modify Risk Parameters

At the beginning, the minimum collateral rate of BTC and ETH is set to 150%. When the collateral rate is less than 150%, the liquidation is triggered. Different collateral assets require different collateral rates, and the same collateral asset may require different collateral rates in different periods. All rates are determined by voting.

3. Adjust Stabilization Rate

After the stablecoins are borrowed through CDP, an additional stabilization fee is required when repaying the debt. The adjustment of the fee rate can directly affect the debt scale. When the debt scale is too large, the stabilization fee rate can be increased to encourage users to redeem the collateral. When the debt scale is small, the stabilization fee rate can be reduced. Part of the stabilization fee is awarded to the holders of stablecoins, and the other half is included in the risk reserve in response to the black swan incidents.

4. Select Oracle

The platform obtains the internal price of the collateral through a decentralized oracle, and holders of stablecoins can vote to control the number of nodes of the oracle, or name a trusted oracle.

5. Adjust Other Parameters

The upper limit of debt scale, the election of global liquidators and other governance processes are all resulted by voting.

IX Stablecoin Liquidation

1. Partial Liquidation

When the collateral rate is less than the minimum limit, the liquidation is triggered, then the system auction the collateralized BTC or ETH to raise stablecoins to repay the debt. The entire liquidation process is divided into two steps, bidding and shipping. In the first step, the price of the collateral assets is determined through public bidding. In the second step, successful bidders transfer stablecoins to smart contracts in exchange for collateral assets obtained from the auction. The remaining collateral assets are returned to the user, but a fine is charged, and the fine is included in the risk reserve.

2. Global Liquidation

When the stablecoin system fails due to a malicious attack, resulting in a large difference between the price of the collateral assets obtained by the oracle and the actual risk exceeding the system's risk tolerance, the global liquidator selected by the currency holder can authorize the liquidation. The global liquidation steps are as follows:

1). Start

After the global liquidation is triggered, operations such as debt creation and repayment are prohibited, and the system freeze the feed price at a fixed price to facilitate the exchange of all users.

2). Auction

Debt in the system is publicly auctioned in a decentralized manner to repay the claims of collateral borrowers.

3). Exchange

When the auction is completed, stablecoin holders can issue a request on the platform to exchange the collateral asset at the target price.

Disclaimer

This whitepaper is written for conveying information only, the content only for reference, and it does not constitute any trading advice, abetting or invitation to sell stocks or securities in Libra XS Foundation and related companies. This whitepaper does not provide any trading behavior, nor is it a contract or commitment of any kind.

In view of unpredictable circumstances, the goals listed in this whitepaper may change, and part of the content of the whitepaper may be adjusted accordingly as the project progresses. Any change or updates of the whitepaper will be publicized by posting announcements or uploading new whitepapers on the website. The loss suffered by investors in the process of exchanging has nothing to do with the Libra XS Foundation team, individuals and teams participating shall solely assume all the risks.

Libra XS Foundation team will strive to achieve the goals mentioned in the whitepaper, but in case of force majeure, the team must not make a commitment. To the maximum extent permitted by applicable law, the team shall not be liable for damages and risks arising from participation in stablecoin exchange, including but not limited to direct or indirect personal damage, loss of commercial profit, loss of business information, or any other economic loss.

Libra XS Foundation has clearly conveyed the possible risks to investors. Investors participating in the stablecoin exchange is regarded that they confirm they have understood and accepted the terms and conditions in the detailed rules, and shall bear the potential risks in the exchange process.

Risk Warning

The risks exist in the development, maintenance and operation of Libra XS Foundation, many of which exceed the control and expectations of the developer. In addition to the others described in this whitepaper, investors should also fully understand and accept the following risks:

Market Risk

Libra XS is a decentralized stablecoin system with small price fluctuations, and price stabilizing measures. However, due to the liquidity or other issues, the stable coin price may vary higher or lower than the fiat price in actual transactions.

Regulatory Risk

Because the Blockchain is in the stage of development, there are still no unified laws and regulations related to industry. The Blockchain technology is being, or may be, overseen by the regulatory authorities of various jurisdictions. If some regulatory authorities intervene or exert influence on the project, Libra XS Foundation may be seriously affected, hindered or terminated.

Project Technical Risks

The accelerated development of cryptography or technology, such as the development of quantum computers, might bring new risks to the platform, which may lead to the loss of stablecoins. During the project update process, vulnerabilities may appear, and there is no guarantee that they will not cause any impact even if the vulnerabilities are fixed in a timely manner. When the network is congested, there may be risks caused by the delay in the price of the Oracle.

Other Unexpected Risks

Aside from those mentioned in this whitepaper, there are some risks that some founding teams have not mentioned or have not anticipated yet. Besides, other risks may also appear suddenly, or in a combination of several of the risks already

mentioned. Participants are suggested to fully understand the background of the team and the overall framework and ideas of the project, and participate rationally before making the decision.